Inventors: Huse and Freedman
Serial No.: 09/169,048
Filed: October 8, 1998

APPENDIX A

In the Specification:

Please delete the paragraph on page 54, line 17 through page 55, line 12 and substitute therefor:

The results of the screen are summarized in Figure [6] 4, where receptors are represented as discs and ligands are represented as symbols. These results demonstrate that screening ligands against a population of receptor variants will rapidly identify ligands having optimal binding activity. For example, if the collective receptor variant population of this example were screened in the melanophore system, ligand No. 3 would have generated the highest signal since it binds to all seven receptors in the receptor variant population. Ligand No. 7 would give a weaker signal since this ligand binds to three receptors in the receptor variant population. Ligand No. 1 would give a still weaker signal since this ligand binds to two receptors in the receptor variant population. Thus, screening with a collective receptor variant population provides more information about the binding characteristics of the ligand than screening with the parent receptor alone. In addition, ligands that bind weakly to the parent receptor may not have been detectable above background when screened against the parent alone but are detectable when more than one receptor in the receptor variant population binds to the ligand.

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In the Claims:

Please amend the claims as follows:

10. (Amended) A method for determining binding of a ligand to [one] two or more receptors, comprising contacting a collective ligand variant population with said [one] two or more receptors and detecting binding of said [one] two or more receptors to said collective ligand variant population.

11. (Amended) The method of claim 10, further comprising dividing said collective ligand variant population into two or more subpopulations, contacting one or more of said two or more subpopulations with said [one] two or more receptors and detecting one or more ligand variant subpopulations having binding activity to said [one] two or more receptors.

13. (Amended) The method of claim 12, wherein said detecting identifies a ligand variant having binding activity to said [one] two or more receptors.

14. (Amended) The method of claim 13, wherein said detecting identifies a ligand variant having optimal binding activity to said [one] two or more receptors.

17. (Amended) The method of claim 10, further comprising isolating an individual ligand variant having binding activity to said [one] two or more [ligands] receptors, wherein said ligand variant is linked to [an identifiable] a tag.

18. (Amended) The method of claim 10, further comprising dividing said collective ligand variant population into two or more subpopulations, contacting said two or more subpopulations with said [one] two or more receptors and detecting one or more ligand variant subpopulations having binding activity to said [one] two or more receptors.